Five year review of intensive care unit-acquired blood stream infections | 1


Reference:


Iliopsoas abscess as a complication of tunneled jugular vein catheterization
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Abstract:

PURPOSE: Bloodstream infections (BSIs) are serious complications with high mortality and morbidity in patients with critical illness. This study was conducted to analyze the clinical and microbiological characteristics as well as outcomes in patients with intensive care unit (ICU)-acquired BSIs.

METHODS: Data from 1,545 patients admitted to the ICU were retrospectively collected from January 2005 to December 2010. ICU-acquired BSI was defined as a positive blood culture for
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a clinically significant bacterial or fungal pathogen obtained >72 h after admission to the ICU. Data on clinical and demographic characteristics, comorbid illness, causes of infections, causative pathogens, and clinical outcomes were analyzed.

RESULTS: Among the 1,545 ICU patients analyzed, 129 ICU-acquired BSIs occurred in 124 patients. Catheter-related BSIs (CR-BSIs) and ventilator-associated pneumonia (VAP) were the most common causes (29.4 and 20.9 %, respectively). The most common isolates were Staphylococcus aureus in 35 (25.7 %) and Candida species in 32 (24.8 %) cases. Ninety-eight patients died (overall hospital mortality rate, 75.9 %). ICU-acquired BSI-related mortality occurred in 23 (63.8 %) and 7 (19.4 %) of the VAP and CR-BSIs cases, respectively. The most commonly isolated microorganisms from these fatalities were S. aureus (12, 25.7 %) and Acinetobacter species (12, 25.7 %). In 99 ICU-acquired BSI cases, patients did not receive adequate empirical antimicrobial treatment at the onset of BSIs, whereas the patients in 30 cases did.

CONCLUSION: ICU-acquired BSIs may be associated with high mortality in patients with critical illness. Meticulous infection control and adequate treatment may reduce ICU-acquired BSI-related mortality.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).